

46 - Water Reuse Program

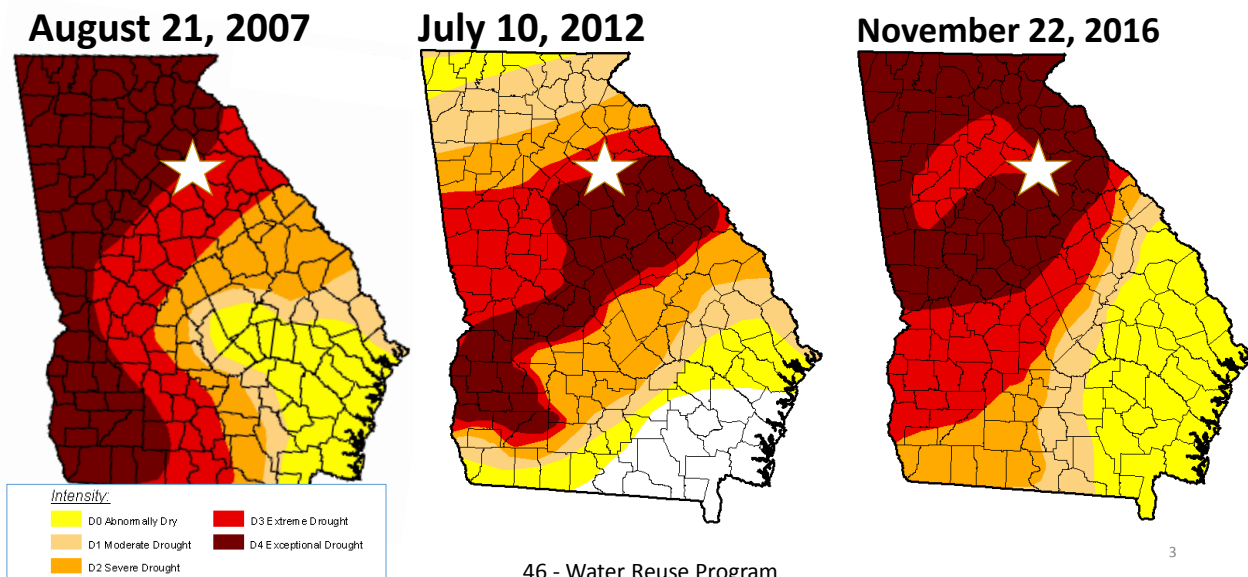
SPLOST Proposal Presented by ACC Public Utilities Department
January 14, 2019

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Water in Athens-Clarke County

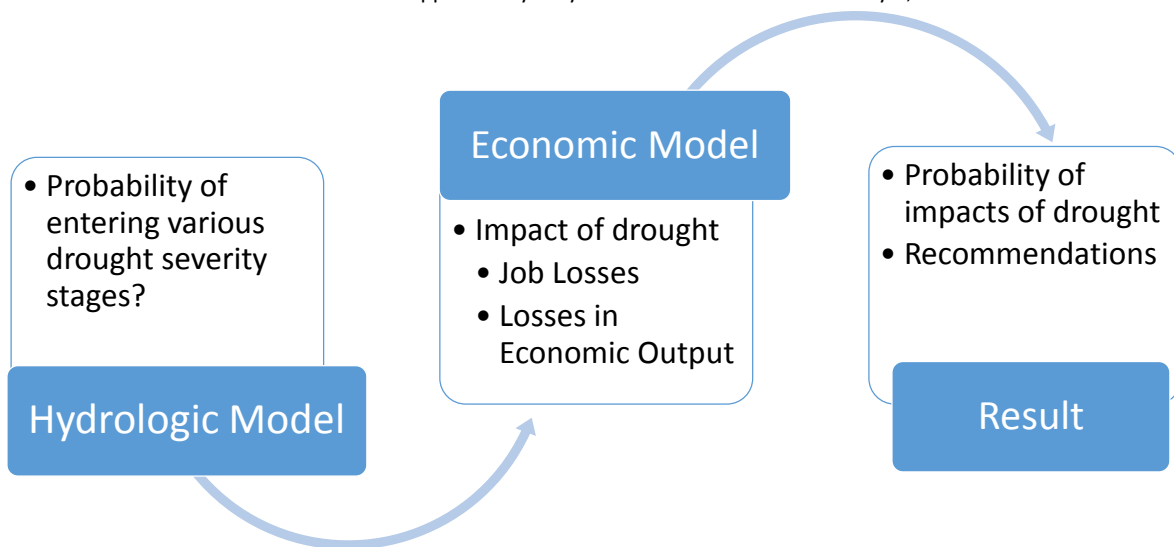


The need to address the community's drought vulnerability is immediate.



Risk Based Assessment

Recommendations Approved by Mayor and Commission on February 7, 2017



Probability of Entering Drought Restrictions

Upper Oconee Basin Water Authority Drought Response Levels

Drought Response Level	Water Use % Reduction	
1	0 to 5	
2	6 to 10	
3	11 to 15	
4	16 to 20	5% Chance
5	>20	

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Economic impacts of drought can be substantial

- According to standardized economic modeling
 - A Level 4 (15-20%) County-wide water use reduction could result in:
 - Loss of \$244 million in Gross Regional Product (GRP)
 - Over 4,000 jobs lost
 - Additional impacts

While the risk of imposed reductions may be small, the economic impacts to the community are large.

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Risk-Based Water Supply Assessment *Recommendations*

- Additional efficiency & conservation programs
- Non-Potable Water Reuse Program
- Additional raw and recycled water storage

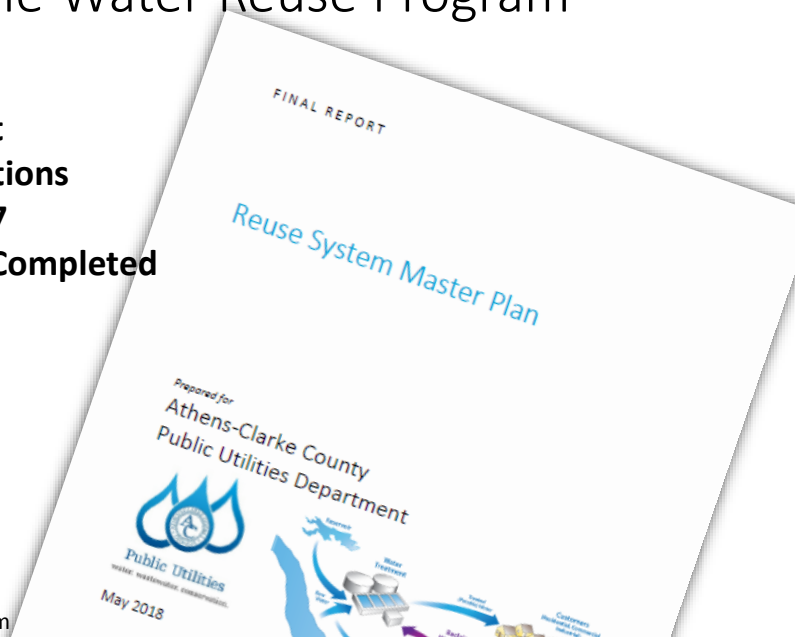
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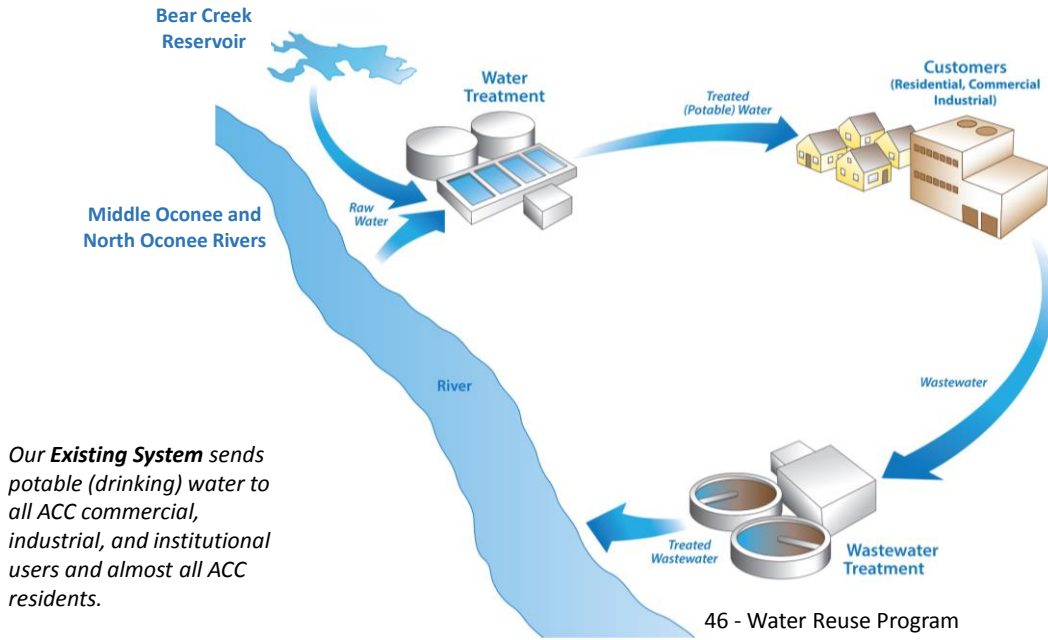
Non-Potable Water Reuse Program

- **Risk Based Drought Impact Assessment Recommendations Approved February 7, 2017**
- **Water Reuse Master Plan Completed May, 2018**

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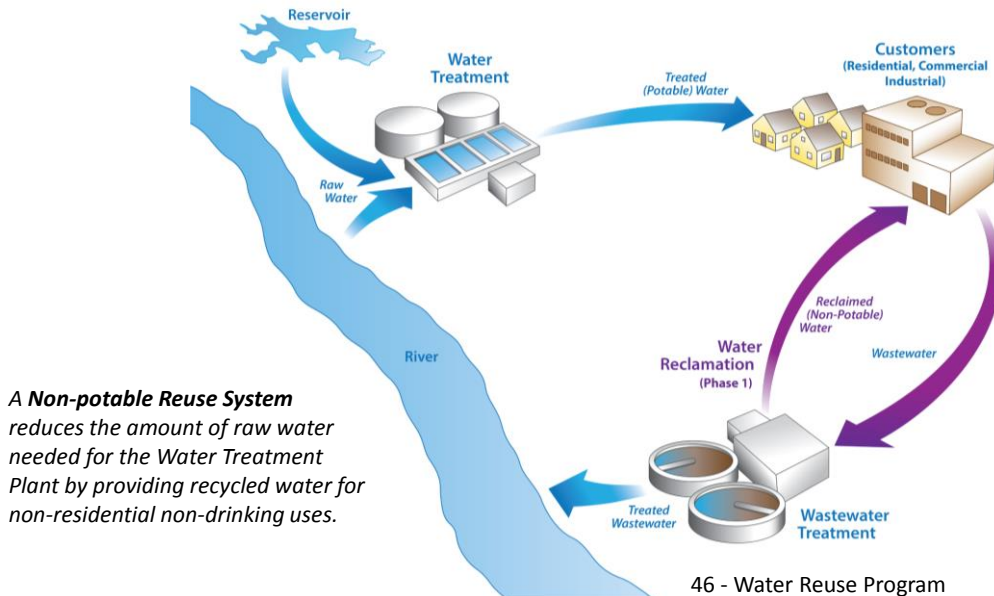


Current Water and Reclamation System



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Water, Reclamation, and Reuse/Recycling System



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Non-Potable Water Reuse Program

- The Non-Potable Water Reuse Program will distribute highly treated recycled water from the North Oconee Water Reclamation Facility to the Employment Center that includes the Athena Industrial Park and the University of Georgia
 - Provides water for industrial processes, cooling, and irrigation
 - Utilizes past investment in reclaimed water system
 - Water Reclamation Facilities were designed to accommodate reuse/recycling system
 - Reclaimed water is a valuable resource that is currently being disposed of by returning it to the river
 - Reclaimed water is an existing water resource already owned and controlled by Athens-Clarke County

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Non-Potable Reuse System: Cost

Component	Annual O&M from PUD Enterprise Fund*
Non-Potable Water Pump Station	\$110K
Transmission Main: NOWRF to UGA	\$20K
Transmission Main: NOWRF to Industrial/Employment Zone	\$140K
Industrial Park Elevated Storage Tank	\$20K
Total Estimated Project Cost	290K

*O&M does not affect the ACC General Fund

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Summary: Water Reuse Program

- Essential component of the recommendations approved by M&C on February 7, 2018
 - Potential to increase water supply by up to 3.4 million gallons per day
 - Provides a sustainable, ACC-controlled water supply
 - Improves the resilience of water supplies during drought
 - Extends effectiveness of Bear Creek Reservoir
 - Part of a strategy that protects Athens from the catastrophic impacts of drought
- Questions?